

Attachment 47
Environmental Considerations
Univision New York LLC
WFUT-DT Newark, NJ
Channel 30 80 kW 309 m

This application proposes continued use of the WFUT-DT pre-transition transmitter site, which is a multiple-user facility owned by The Durst Organization and managed by Royal Realty. No physical construction is proposed outside the existing building. Use of currently utilized, shared sites is environmentally preferred to new site construction.

Operation on channel 30, with its center frequency of 569 MHz, implies a radiofrequency radiation exposure guideline value of $379 \mu\text{W}/\text{cm}^2$ for the general population. The Dielectric TUA 08-8/64U-2-R antenna has its radiation center 85.3 meters above the building rooftop. The radius from the building and tower center to the farthest point of the rooftop (the outer edge of the display signage) is 31.3 meters, yielding a minimum depression angle of 69.4° . The antenna has a maximum radiation value of 0.07 at depression angles greater than that limiting value (see attached antenna elevation radiation pattern data). Consequently, the worst-case predicted exposure level at 2 meters above the rooftop is $1.89 \mu\text{W}/\text{cm}^2$, 0.50% of the guideline value.

Access to the building rooftop is restricted and marked by warning signs and RFR level signal lights tied into a radiation monitoring system. WFUT-DT recognizes its obligation to reduce power or cease operation when tower work is occurring at elevations that might otherwise lead to radiofrequency radiation exposure in excess of pertinent guideline values. A formal RFR protocol is in effect at this multi-user site.

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Proposal Number

C-

Date

7-Jan-08

Call Letters

Channel **30**

Location

New York, NY

Customer

Antenna Type

TUA-O8-8/64U-2-R

ELEVATION PATTERN

RMS Gain at Main Lobe

16.71 (12.23 dB)

Beam Tilt

1.20 deg

RMS Gain at Horizontal

9.70 (9.87 dB)

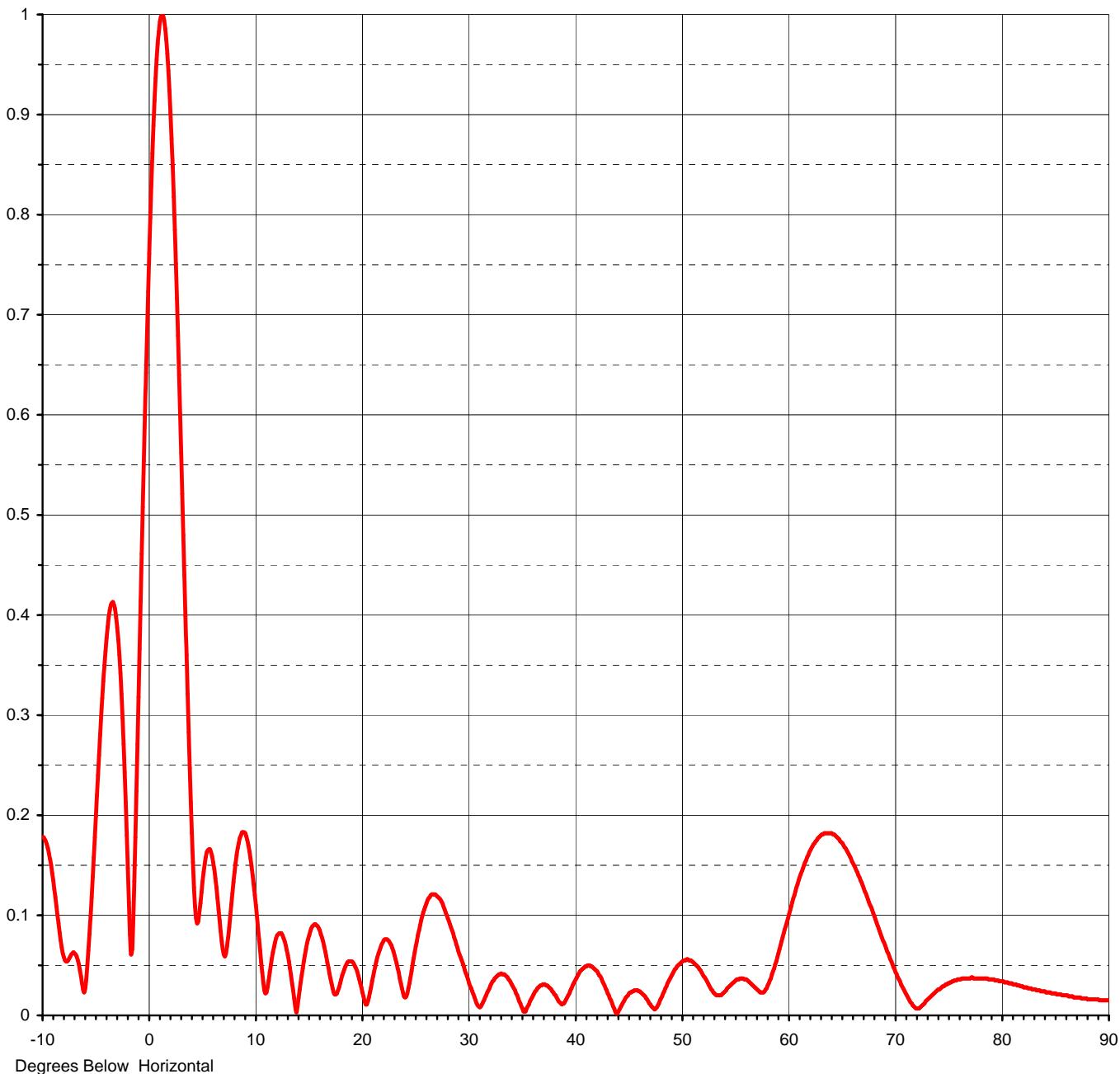
Frequency

569.00 MHz

Calculated / Measured

Calculated

Drawing #

120-90

Degrees Below Horizontal



Proposal Number

C-

Date

7-Jan-08

Call Letters

Channel

30

Location

New York, NY

Customer

Antenna Type

TUA-O8-8/64U-2-R**TABULATION OF ELEVATION PATTERN**Elevation Pattern Drawing #: **120-90**

| Angle | Field |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| -10.0 | 0.178 | 2.4 | 0.785 | 10.6 | 0.053 | 30.5 | 0.021 | 51.0 | 0.054 | 71.5 | 0.012 |
| -9.5 | 0.167 | 2.6 | 0.716 | 10.8 | 0.033 | 31.0 | 0.009 | 51.5 | 0.049 | 72.0 | 0.007 |
| -9.0 | 0.135 | 2.8 | 0.640 | 11.0 | 0.022 | 31.5 | 0.015 | 52.0 | 0.041 | 72.5 | 0.010 |
| -8.5 | 0.092 | 3.0 | 0.562 | 11.5 | 0.050 | 32.0 | 0.027 | 52.5 | 0.032 | 73.0 | 0.016 |
| -8.0 | 0.058 | 3.2 | 0.480 | 12.0 | 0.077 | 32.5 | 0.037 | 53.0 | 0.023 | 73.5 | 0.021 |
| -7.5 | 0.057 | 3.4 | 0.399 | 12.5 | 0.082 | 33.0 | 0.041 | 53.5 | 0.020 | 74.0 | 0.026 |
| -7.0 | 0.062 | 3.6 | 0.321 | 13.0 | 0.065 | 33.5 | 0.040 | 54.0 | 0.023 | 74.5 | 0.029 |
| -6.5 | 0.045 | 3.8 | 0.247 | 13.5 | 0.032 | 34.0 | 0.033 | 54.5 | 0.029 | 75.0 | 0.032 |
| -6.0 | 0.027 | 4.0 | 0.182 | 14.0 | 0.009 | 34.5 | 0.022 | 55.0 | 0.034 | 75.5 | 0.035 |
| -5.5 | 0.099 | 4.2 | 0.128 | 14.5 | 0.047 | 35.0 | 0.009 | 55.5 | 0.037 | 76.0 | 0.036 |
| -5.0 | 0.199 | 4.4 | 0.097 | 15.0 | 0.076 | 35.5 | 0.007 | 56.0 | 0.036 | 76.5 | 0.037 |
| -4.5 | 0.299 | 4.6 | 0.094 | 15.5 | 0.090 | 36.0 | 0.018 | 56.5 | 0.032 | 77.0 | 0.037 |
| -4.0 | 0.377 | 4.8 | 0.112 | 16.0 | 0.087 | 36.5 | 0.027 | 57.0 | 0.027 | 77.5 | 0.037 |
| -3.5 | 0.412 | 5.0 | 0.134 | 16.5 | 0.069 | 37.0 | 0.031 | 57.5 | 0.023 | 78.0 | 0.037 |
| -3.0 | 0.388 | 5.2 | 0.151 | 17.0 | 0.042 | 37.5 | 0.029 | 58.0 | 0.027 | 78.5 | 0.037 |
| -2.8 | 0.360 | 5.4 | 0.163 | 17.5 | 0.021 | 38.0 | 0.023 | 58.5 | 0.041 | 79.0 | 0.036 |
| -2.6 | 0.321 | 5.6 | 0.166 | 18.0 | 0.032 | 38.5 | 0.014 | 59.0 | 0.058 | 79.5 | 0.035 |
| -2.4 | 0.271 | 5.8 | 0.163 | 18.5 | 0.049 | 39.0 | 0.012 | 59.5 | 0.078 | 80.0 | 0.034 |
| -2.2 | 0.213 | 6.0 | 0.153 | 19.0 | 0.054 | 39.5 | 0.022 | 60.0 | 0.097 | 80.5 | 0.033 |
| -2.0 | 0.147 | 6.2 | 0.137 | 19.5 | 0.047 | 40.0 | 0.034 | 60.5 | 0.117 | 81.0 | 0.031 |
| -1.8 | 0.081 | 6.4 | 0.117 | 20.0 | 0.028 | 40.5 | 0.044 | 61.0 | 0.135 | 81.5 | 0.030 |
| -1.6 | 0.066 | 6.6 | 0.095 | 20.5 | 0.011 | 41.0 | 0.049 | 61.5 | 0.150 | 82.0 | 0.028 |
| -1.4 | 0.134 | 6.8 | 0.074 | 21.0 | 0.034 | 41.5 | 0.049 | 62.0 | 0.163 | 82.5 | 0.027 |
| -1.2 | 0.224 | 7.0 | 0.061 | 21.5 | 0.058 | 42.0 | 0.045 | 62.5 | 0.172 | 83.0 | 0.026 |
| -1.0 | 0.318 | 7.2 | 0.062 | 22.0 | 0.073 | 42.5 | 0.037 | 63.0 | 0.179 | 83.5 | 0.025 |
| -0.8 | 0.414 | 7.4 | 0.078 | 22.5 | 0.075 | 43.0 | 0.025 | 63.5 | 0.182 | 84.0 | 0.024 |
| -0.6 | 0.508 | 7.6 | 0.100 | 23.0 | 0.064 | 43.5 | 0.012 | 64.0 | 0.182 | 84.5 | 0.023 |
| -0.4 | 0.598 | 7.8 | 0.122 | 23.5 | 0.043 | 44.0 | 0.002 | 64.5 | 0.178 | 85.0 | 0.022 |
| -0.2 | 0.683 | 8.0 | 0.143 | 24.0 | 0.019 | 44.5 | 0.012 | 65.0 | 0.172 | 85.5 | 0.021 |
| 0.0 | 0.761 | 8.2 | 0.160 | 24.5 | 0.032 | 45.0 | 0.020 | 65.5 | 0.163 | 86.0 | 0.020 |
| 0.2 | 0.830 | 8.4 | 0.172 | 25.0 | 0.063 | 45.5 | 0.024 | 66.0 | 0.152 | 86.5 | 0.019 |
| 0.4 | 0.889 | 8.6 | 0.180 | 25.5 | 0.090 | 46.0 | 0.024 | 66.5 | 0.140 | 87.0 | 0.018 |
| 0.6 | 0.936 | 8.8 | 0.183 | 26.0 | 0.109 | 46.5 | 0.020 | 67.0 | 0.127 | 87.5 | 0.017 |
| 0.8 | 0.971 | 9.0 | 0.182 | 26.5 | 0.120 | 47.0 | 0.012 | 67.5 | 0.113 | 88.0 | 0.016 |
| 1.0 | 0.993 | 9.2 | 0.175 | 27.0 | 0.120 | 47.5 | 0.006 | 68.0 | 0.099 | 88.5 | 0.016 |
| 1.2 | 1.000 | 9.4 | 0.164 | 27.5 | 0.114 | 48.0 | 0.015 | 68.5 | 0.084 | 89.0 | 0.016 |
| 1.4 | 0.994 | 9.6 | 0.149 | 28.0 | 0.100 | 48.5 | 0.027 | 69.0 | 0.070 | 89.5 | 0.015 |
| 1.6 | 0.975 | 9.8 | 0.140 | 28.5 | 0.085 | 49.0 | 0.038 | 69.5 | 0.056 | 90.0 | 0.015 |
| 1.8 | 0.944 | 10.0 | 0.120 | 29.0 | 0.068 | 49.5 | 0.047 | 70.0 | 0.043 | | |
| 2.0 | 0.901 | 10.2 | 0.099 | 29.5 | 0.052 | 50.0 | 0.053 | 70.5 | 0.031 | | |
| 2.2 | 0.848 | 10.4 | 0.076 | 30.0 | 0.036 | 50.5 | 0.056 | 71.0 | 0.021 | | |

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